

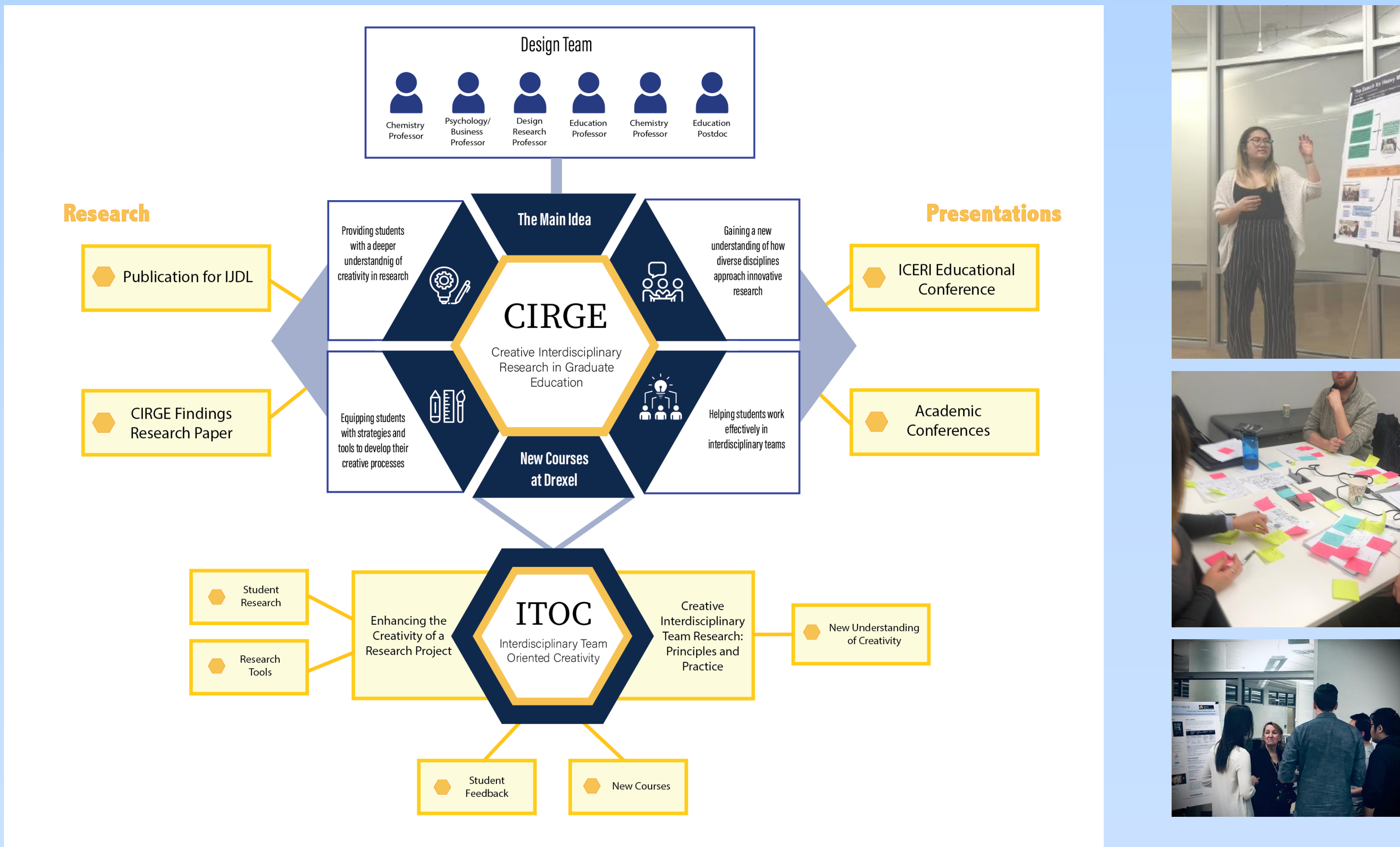
# IGE Creative Interdisciplinary Research in Graduate Education (CIRGE)

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## Introduction

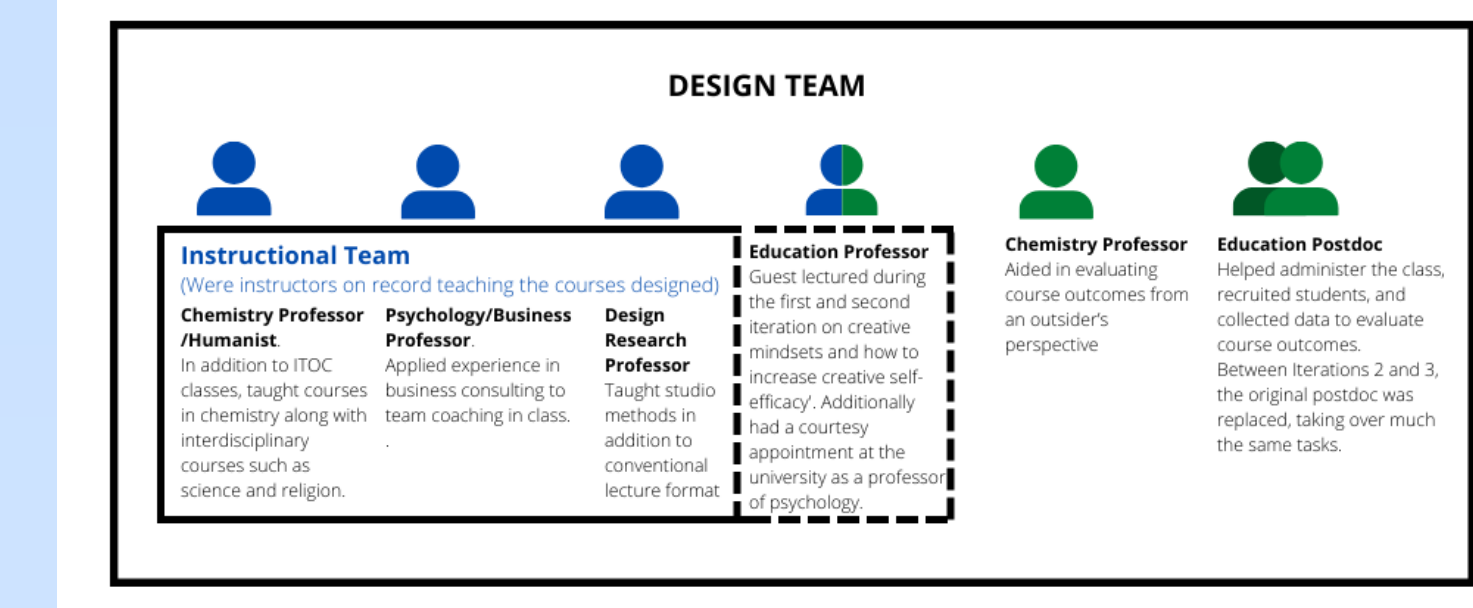
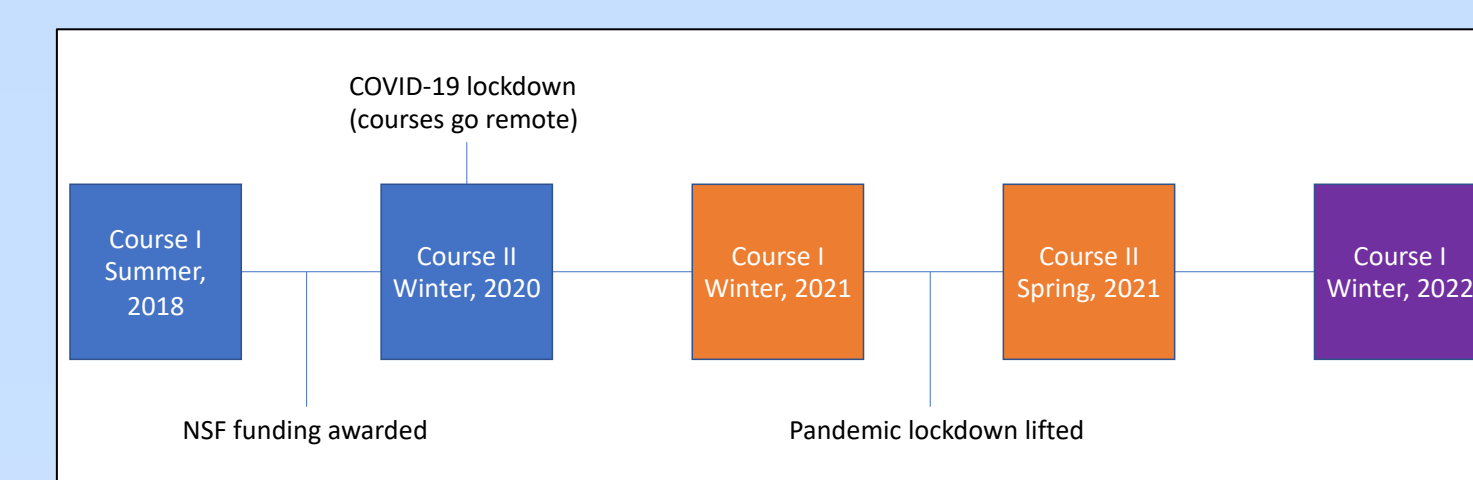
The goal of CIRGE was to facilitate creative thinking, problem solving, and interdisciplinary teamwork, among graduate students. A new graduate minor *Interdisciplinary Team-Oriented Creativity (ITOC)* was developed comprised of two core courses in creativity and two electives. The core course *Creative Interdisciplinary Team Research: Principles and Practice* provided fluency with the foundational principles in cognitive research that demonstrably enhance creative practice and problem-solving skills. The second core course, *Enhancing the Creativity of a Research Project*, was designed to infuse greater creativity into a student's research project.



Tool Category	Subcategory	TASK DETAILS/NOTES	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10
Looking	Fresh eyes	by gaining perspective in class										
	Mindfulness	on team dynamics (active discussion)										
	Render it visible	Visualized/document process										
Asking	Challenging assumptions	by doing research and creating boards										
	5 Whys											
	Fishbone											
Fusing	Affinity mapping											
	Find the bug	What was not working with our process?										
	Stretch and squeeze	discussion on food insecurity										
Learning	Fusing ideas	Sam brought insight about chemical experiment plan										
	Working on all burners	everyone is working on a different part of the project										
	People mash-up	by working together/with others										
ECCD	Found flow-state	With mapping/writing tools										
	Discussed domain/expertise											
	Focused on specific tasks	breakdown in team										
ECCD	Assumption discussion	Discussed with research										
	Discussing power constructs	community needs										
	Stakeholder mapping	Via online background research										
ECCD	Converging											
	Define Greatness											

## Results

- Five courses taught
- Three successive iterations.
- 35 students total.
- The two courses were designed to enhance graduate student creativity, which, by the metrics employed, indicated that the courses were particularly effective in fostering students to become more creative.
- The student projects were of exceptional quality; the last student team went on to win an innovation award from the Baiada Institute.



Week	Course 1	Course 2
1	Creativity Profiles How to Create Teams that Function Well	Class Structure, Expectations, Teamwork, Evaluations, and Framing the Research Problem Introduction to Creativity Teamwork
2	Enhancing Imagination Leading innovation in teams Concept/mind maps	Faculty Panel at Library: Background, Literature, and Scope Librarian Panel Students refine their projects with librarian and staff guidance
3	Methods of Creative Thinking [combines asking the right questions, deliberate practice, and other methods] Sketch noting	Creative mindsets and learning Flow Teamwork
4	Design Thinking Effective Presentations	[Human-centered] Design [and process] Project tuning, preparation for midterm presentations
5	Student Midterm Presentations	Student midterm presentations
6	Generative Strategies	Hypothesis/Objective of the Research Question Teamwork
7	Innovation, Ideation, Incorporation Diversity and Creativity in Work Groups	Panel: Professors Who Teach or Study Creativity Typologies
8	How to Pick the Best Ideas and Implement Creative Ideas	The Role of Logic and Intuition in the Creative Process Teamwork and coaching for final presentations
9	Student Final Presentations and Reflections due	Panel: Creativity in Industry Student final presentations
10	[No Class]	

## Research Products

### Effective Practices for High Performing Interdisciplinary Faculty Teams

Elaine Perignat, Fraser F. Fleming, Diana Nicholas, Daniel King, Jen Katz-Buonincontro & Paul Gondek

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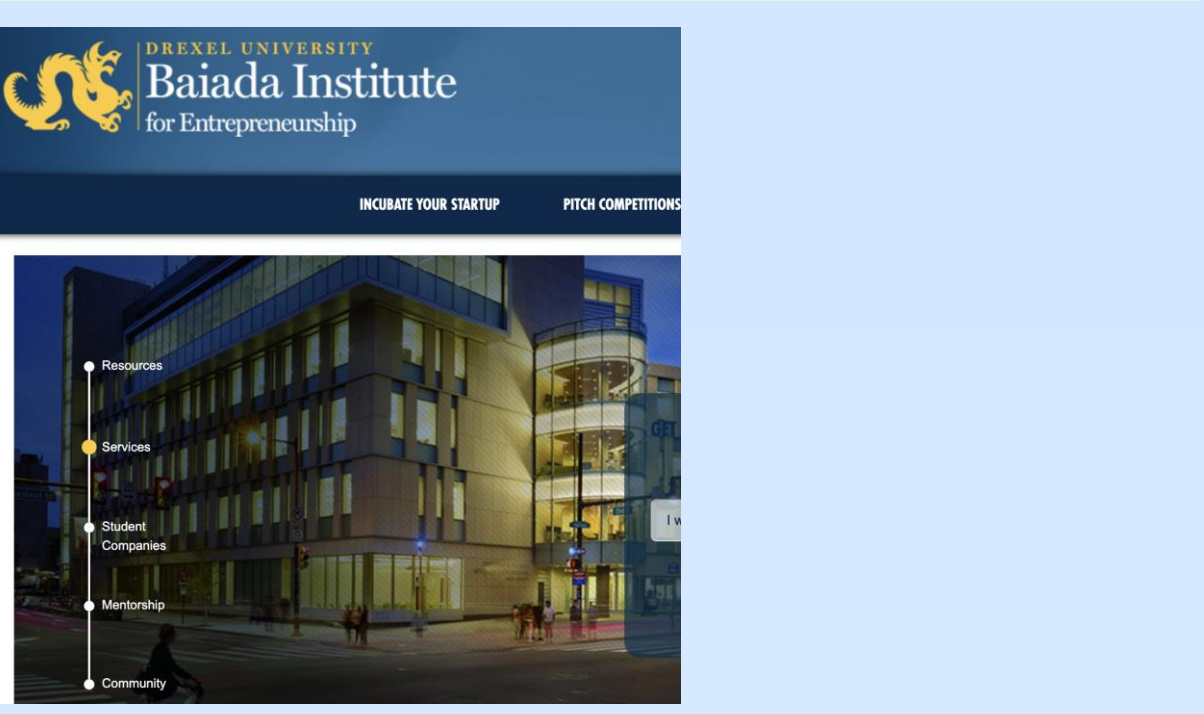
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### DESIGNING AND ITERATING FOR INTERDISCIPLINARY CREATIVE RESEARCH IN GRADUATE TEAMS

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## Classes

- Taught in 3 hour blocks comprised of two interactive teaching sessions and time for work on a team project.
- Guided readings using *ZigZag: The Surprising Path to Greater Creativity* with in-class discussions and exercises
- Team taught. Team members met before each class allowing all faculty to contribute to every class.
- Grades were based on student projects, evidence of creative growth, and use of creativity strategies.



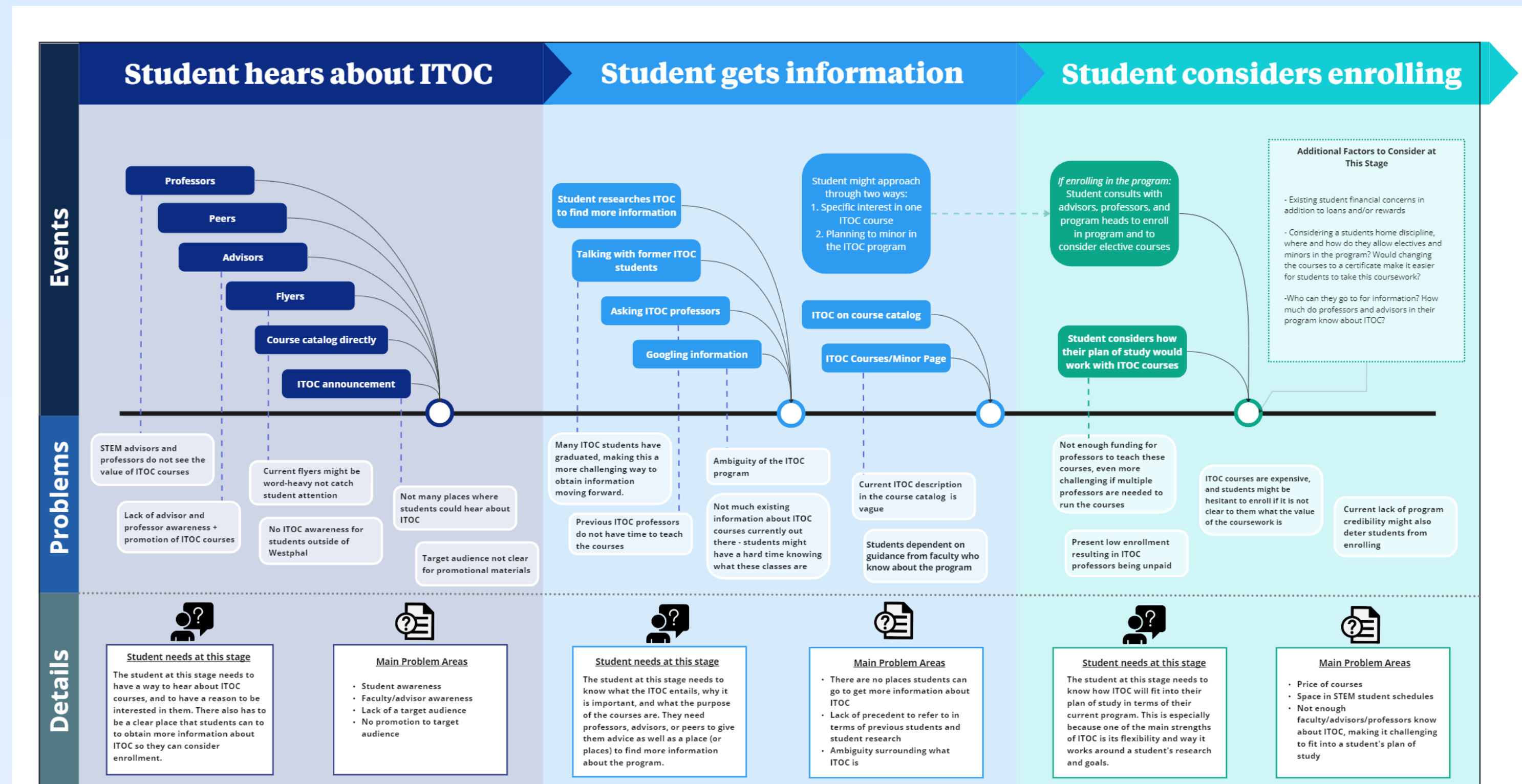
## Teams

- The faculty team modeled the collaboration across disparate disciplines in the same way as the student teams
- Students learned how to use a team charter
- The student team assignments were based on maximizing diversity based on discipline, experience, gender, and creativity profiles.
- A validated creativity instrument *Beliefs About Creativity Scale* and the *Basadur Profile* were used to inform students of their own creative disposition which they used in the teams to assign tasks.
- Students tracked their use of creative skills and practices – see next panel



## Challenges

- Student enrollment (see below).
- University support for a cross-disciplinary elective graduate minor



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